

Environmental Restoration Project



ER Site No. 33: Motor Pool Oil Spill

ADS: 1302

Operable Unit: Technical Area I

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Site History

ER Site 33, the Motor Pool is located on the northeast corner of H and 12th Streets just outside the Technical Area (TA)I secured area. The Motor Pool occupies 2.3 acres and consisted of six buildings at the height of operations: Buildings 873, 874, 875, 876, 8874, and a car wash. The Motor Pool opened in 1946 as the home of the Transportation and Safeguards organization, which has had responsibility for servicing DOE/AL and SNL/NM vehicles since that time.

The site was first listed as a potential solid waste management unit (SWMU) by the Comprehensive Environmental Assessment and Response Program (CEARP), Phase I: Installation Assessment, Sandia National Laboratories, Albuquerque, New Mexico in September 1987. A gasoline spill (not oil as the ER site name suggests) occurred in 1983 at a fuel dispensing island located east of Building 876; the gasoline flowed to the southeast side of the Motor Pool. The spill was contained by an asphalt berm, covered with soil and/or sand, and removed to the Chemical Waste Landfill. The report deemed the remedial action completed.

When the Motor Pool opened in 1946, the first structure was Building 874. The site included various fuel dispensing areas until 1996; the fuel dispensing area has occupied three different locations. A wash/steam clean area was also constructed within the site. Descriptions and histories of the Motor Pool buildings and area follow.

Building 873

Building 873 was constructed in the southwest corner of the Motor Pool area in the late 1940s and served as the dispatch office until the 1990s. The building was renovated in the 1960s. There have been no known sources of a potential release in, and no reported releases of hazardous materials from, this building. Building 873 was demolished through the Facilities Decontamination and Decommissioning (D&D) Program in FY02.

Building 874

Building 874 was the original building in the Motor Pool. It was constructed near the middle of the southern fence in 1946 as the original service station. The building initially included service bays, and a fuel dispensing area was located on its north side. Design drawings were prepared for building renovations undertaken in the 1960s to provide a dispatch area. No building design drawings were located that indicated whether there were any floor drains or other pathways for contaminant migration from the original building. Renovations were performed in the 1980s at Building 874 to provide office and computer space. The drawings do not indicate any potential sources for contaminant releases to the environment. Individuals interviewed regarding past activities at Building 874 did not have any information to indicate there was ever a contaminant release from the building. The building currently provides office space for personnel involved in Motor Pool quality assurance. During a 1993 visit to the building, no floor drains or potential sources of a contaminant release to surrounding soil were observed. The fuel dispensing area was investigated as part of the ER Site 33 RFI.

Building 875

Building 875 was constructed in the late 1940s or early 1950s as the automobile machine shop. In 1959, a front-end machine room and pit, a brake machine room and pit, a parts room, and an office were added. By 1965 an automotive shop, a body shop and a truck shop were located in the building. Minor modifications in 1985 brought it to its current configuration. Interviews of past and present Motor Pool employees indicated there have been no releases of hazardous materials from this building.

According to personnel interviewed, no hazardous materials were used and no hazardous waste was generated in the front-end and brake machining areas. The machine shop was originally used to machine parts for the vehicles. Equipment included a boring press, a boring bar, and a honing machine. In the early 1980s, the honing machine was reportedly found to contain polychlorinated biphenyls (PCBs) and was removed. Regarding disposition of the machine oil, two employees stated that the oil was never changed. Both said the oil was managed by ES&H personnel when the machine was removed.

Building 876

Building 876 was constructed in the late 1940s for its current use, vehicle maintenance and repairs. Building drawings indicate that the building originally contained a vehicle wash room, boiler room, tire room, and a grease room. The grease room ran the length of the building with a grease pit in the center. Vehicles were reportedly parked over the grease pit when serviced. The room was designed with an oil collection system. Oil entering the grease pit was diverted through oil interceptor lines to an underground drain oil tank on the north side of the building. The waste oil discharged to the abandoned grease pit and interceptor lines in Building 876

flowed by gravity to the drain oil tank. Other materials may also have been collected in the grease pit during automobile maintenance and repair activities, including cleaning compounds, antifreeze, and metals from motor oil (lead and aluminum).

The grease pit was abandoned and filled with concrete in the mid-1960s. By 1965, use of the drain oil tank had also ceased. Reportedly, oil was either collected in a large tank for use in dust control on roads between TA-I and TA-III or poured into a 10-ft by 20-ft pit under the wash/steam clean area. The drain oil tank was removed in May 1991 under New Mexico Environment Department (NMED) oversight. Soil samples were collected and analyzed. No documentation of NMED site closure was located in the background information reviewed in preparation of the TA-I Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) work plan. The former drain oil tank site was evaluated under ADS 1300, Underground Storage Tanks, as part of the SNL/NM ER Project. A complete history of the grease pit, interceptor lines, and drain line could not be completed during the development of the TA-I RFI. The grease pit and interceptor lines were investigated as part of the ER Site 33 RFI.

Building 8874

Building 8874 is a small corrugated metal building that has occupied the southeast corner of the Motor Pool since the mid-1940s. The building has been used to store equipment for most, if not all, of its history. No drawings were located for the building. Based on the information available, no hazardous materials were stored in or released from the building. This building was demolished through the Facilities D&D Program in FY02.

Fuel Dispensing Areas

The fuel dispensing area north of Building 874 operated from approximately 1946 until the mid-to late-1960s. There were two 8,000-gal underground gasoline storage tanks and one 8,000-gal underground diesel fuel tank. The gasoline tanks were located approximately 25 ft northeast and northwest of Building 874; the diesel tank was located about 50 ft north of Building 874. The tanks were filled either from H Street via fill lines or from directly above the tank.

The fuel dispensing area was moved to a concrete area east of Building 876 in the late 1960s. Based on information gathered through employee interviews and a review of the building drawings, it is unclear whether both diesel and gasoline were dispensed from the same area east of Building 876 or whether tanks were installed adjacent to the pumps. During the gathering of RFI background information, an employee indicated that gasoline was supplied to the second dispensing area from the tanks located north of Building 874 but was uncertain whether diesel was dispensed from the same location. During the ER Site field investigation, the Motor Pool manager stated that no underground storage tanks (USTs) were located east of Building 876 and the fuel for the second dispensing area was supplied through the distribution lines from the original USTs, north of Building 874.

Between 1982 and 1984, the fuel dispensing area was relocated north of Building 873, along the western side of the Motor Pool. The tanks north of Building 874 were reportedly removed and the fill lines capped in 1983, per interviews with employees. SNL/NM Mechanical Drawing No. 92537, M-1, indicates that the fueling facility was renovated and relocated in 1982 and the existing lines were capped and abandoned in place; no tanks are shown. The fuel dispensing

areas north of Building 874 and east of Building 876 were investigated as part of the ER Site 33 RFI. The fuel dispensing area north of Building 873 was not investigated because it was relatively new at the time of the RFI investigation. In 1996, the fuel dispensing area north of Building 873 was shut down and the associated tanks were removed.

Based on information gathered through employee interviews, the spill reported in the 1985 CEARP interviews occurred soon after the fuel dispensing area was moved to its location north of Building 873. Someone filling a vehicle reportedly failed to replace the gas nozzle before leaving the pump. The pump was not equipped with an automatic shut-off valve, and gasoline leaked for approximately one-half hour before the spill was noticed and the pump shut off. The spill flowed toward the southeast corner of the Motor Pool, where it was contained by an asphalt dike and covered with sand or soil. The sand or soil was collected and temporarily stored in the southwest corner of the Motor Pool before it was removed. In interviews conducted for the RCRA Facility Assessment (RFA), personnel indicated that the soil was taken to the [Chemical Waste Landfill](#) for final disposal. Because the spill should not have penetrated the asphalt cover at the site, no further investigation of the spill site was planned.

Wash/Steam Clean Area

In 1965 a wash/steam clean area was constructed south of Building 876. The wash area is composed of a grated pit with four evenly spaced floor drains that were originally connected to the storm drain system via an oil interceptor east of the wash area. The pit was routinely cleaned every six months from 1983 to the early 1990s but there was no known inspection of the pit during this time. Maintenance practices before 1983 are unknown. In the early 1990s the interceptor line was rerouted from the storm drain to the sanitary sewer system.

Information gathered from interviews with current and past Motor Pool employees indicates that waste was drained into the wash/steam clean area. Batteries were drained on pit edges and waste antifreeze was poured into the pit. One individual said waste oil was dumped into the pit; however, another individual said that it was not. Materials other than wash water were allowed to drain and were poured into the pit from 1965 until the early 1980s. The wash/steam clean area was investigated as part of the ER Site 33 RFI.

Car Wash Area

The car wash was constructed around 1987. No known hazardous materials are used in the car wash, and no releases of hazardous materials have been reported from the facility. No further investigation of the area was planned.

Constituents of Concern

The potential constituents of concern (COCs) that have been associated with this site during its history include:

Petroleum hydrocarbons,
Organic compounds,
and Metals.

Current Hazards

The final risk assessment for this site indicated that the human health risk was acceptable for an industrial site. Elevated levels of nickel and copper caused the site to have unacceptable risk for residential usage; however these elevated concentration were found at depths greater than 10 feet below the ground surface and should not be a danger to emergency workers at the ground surface.

There may be structures or stored materials that remain at the site that are a potential hazard.

Current Status of Work

The TA-I RFI Work Plan was delivered to the Environmental Protection Agency (EPA) for review in February 1995. The field investigation outlined in the work plan for this site was completed in 1995. Site characterization included collection of near-surface (5-20 ft) soil samples.

There were low levels of organic compounds found at the site, the greatest being, for one sample 0.550 PPM tetrachloroethene, and, for another sample, 7.6 PPM bis (2-ethylhexyl) phthalate and 2.5 PPM pyrene. There were also concentrations of some metals above background including concentrations of silver, thallium, nickel and vanadium. This site was proposed to the regulatory agencies for No Further Action (NFA) in October 1996 based on the results of the confirmatory sampling.

NMED reviewed the NFA and returned a Request for Supplemental Information (RSI) in February 1998. SNL responded to the RSI in May 1998 and submitted most of the information requested. The NMED requested a few items that were not included in the May 1998 response: closure letters for underground tanks and the gasoline spill, a risk assessment, and constituent cross-sections. The risk assessment and constituent cross-sections were presented to NMED in October 2000. The closure letters were unavailable in SNL's Record Center; the NM Underground Storage Tank (UST) Office was contacted to obtain the letters. The UST Office indicated verbally that they did not have the closure letters that were requested, and would not issue the closure letters at this time.

In December 2000, the NMED issued a second RSI. In this RSI, the NMED requested that additional sampling be completed in the vicinity of the gasoline spill, and beneath the underground waste storage tank. Samples were collected in April and May 2001. The samples beneath the gasoline spill were analyzed for VOCs, and those beneath the underground waste storage tank for VOCs, SVOCs, and metals.

This additional laboratory data was submitted to the NMED in July 2001. There were very few detections of VOCs and SVOCs, and most of the values were below the laboratory reporting limit. There were detections of arsenic, barium, cobalt, copper, thallium and vanadium above background values.

In August 2001, a final risk assessment and the Motor Pool cross-sections were submitted to the NMED.

In March 2003, the NMED accepted this site for NFA status under an industrial land-use scenario.

Future Work Planned

No further work is planned.

Waste Volume Estimated/Generated

A small amount of waste has been generated as a result of sampling.

Information for ER Site 33 was last updated Jul 11, 2003.